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PATENT DOCKET ADMINISTRATION RE/R11/A109
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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 December 2004</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Arguments

1.   Applicant's arguments with respect to claims 1-14 have been considered but are not persuasive.

Applicant argues that Knee does not discloses a three dimensional profile surface. Applicant further asserts that while the comparison of Knee requires a cell by cell data comparison, it does not require the three dimensional mapping of data points onto a profile surface. These arguments are not persuasive. It is noted that "a three dimensional profile surface" is not claimed.

Applicant further argues that Knee does not disclose the mapping of first and second fuzzy variables onto a profile surface to calculate a priority number. This argument is not persuasive.

Firstly, "mapping the first and second fuzzy variables onto a profile surface to calculate a priority number" is not specifically claimed.

Secondly, the limitation "determining a first priority by mapping the first and second fuzzy variable values onto a profile surface adapted for determining preferences associated with a television viewer" recited in each independent claim is met by teaching of Knee. Specifically, Knee teaches that a microprocessor utilizes a particular user input received to determine that particular user values for different demographic categories (see page 1, 0009 and page 3, 0027). Knee further teaches determining a first desirability or probability that a particular user fits the categories by mapping the first and second preselected values, e.g., value "0.7" for sports fan demographic category and value "1" for the male in the age group of 18-40 demographic category, onto a demographic categories table (as illustrated in figure 2) adapted for determining preferences associated with a television user. It is noted that the value for each of the demographic categories is in range between 0 and 1. Zero indicates that the user does

not fit the demographic category or the probability that the user fits the category is 0. One

indicates that the user fully fits the demographic category or the probability that the user fits the

category is 1 (see page 3, 0030).

With respect to claims 7 and 13, applicant argues that the combination of Knee and

Lazarus can not render obvious the claimed system. Examiner respectfully disagrees.

Knee discloses that the microprocessor 60 compares the values of the relevant

demographic categories for the user stored in memory 64 with the preselected values

associated with each advertisement received by the set top box 48 to determine whether the

advertisement is to be displayed on the television 52 (see page 3, 0028). That is, the

advertisement(s) is/are selected for displaying from among many advertisements transmitted to

the set top box if the relevant preselected values of the advertisement(s) are met by the

demographic categories values. On the other hand, the advertisement(s) is/are ignored or is/are

not selected for displaying if the relevant preselected values of the advertisement(s) are not met

by the demographic categories values. Knee does not teach deleting advertisement unlikely to

be used from the memory. That is, Knee does not teach deleting the unused information from

the memory. However, Lazarus discloses that a memory management system deletes the least

valuable information to free memory space. It would have been obvious to one having ordinary

skill in the art at the time the invention was made to modify the system of Knee by deleting the

least valuable information or the unused information from the memory as taught by Lazarus in

order to free memory space.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-3, 5, 6, 9, 10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Knee et al. (U.S. 20020095676 A1).

Regarding claim **1**, Knee discloses a method for selecting a first digital object display in an electronic television program guide (a method for selecting a first advertisement display in a television program guide – see abstract and page 5, claim 5):

receiving the first digital object from a direct-to-home satellite communication system (receiving the first advertisement from satellite link 40 – see page 2, [0018], [0020]);

determining first and second fuzzy variable values associated with the first digital object (determining first and second preselected values, e.g., "0.7" and "1", associated with the first advertisement, e.g., advertisement #2 – page 2, [0020] and page 3, [0028]);

determining a first priority by mapping the first and second fuzzy variable values onto a profile surface adapted for determining preferences associated with a television viewer (determining a first desirability or probability that a particular user fits the categories by mapping the first and second preselected values, e.g., value "0.7" for sports fan demographic category and value "1" for the male in the age group of 18-40 demographic category, onto a demographic categories table (as illustrated in figure 2) adapted for determining preferences associated with a television user - see figure 2 and page 3, [0028] and [0033]);

comparing the first priority to a predefined threshold (comparing the preselected values to the user values for each of relevant demographic categories – see page 3, [0028] and [0033]); and

selecting the first digital object for display in the electronic television program guide if the

first priority crosses the predefined threshold (selecting the first advertisement, e.g.,

advertisement #2, for display in the television program guide if the preselected values are met

by the user values for each of relevant demographic categories – see page 4, [0046] and page

3, [0033]).

Regarding claim **2**, Knee discloses receiving a second digital object from the

direct-to-home satellite communication system (receiving next advertisement from satellite link

40 – see page 2, [0018]);

setting the predefined threshold to the first priority (setting the user values for each

demographic category to the first desirability or the probability that the user fits the category –

see page 3, [0028-0031]);

receiving a second digital object from the direct-to-home satellite communication system

(receiving the next advertisement from satellite link 40 – see page 2, [0018], [0020]);

determining third and fourth fuzzy variable values associated with the second digital

object (determining third and fourth preselected values associated with the next advertisement –

page 2, [0020] and page 3, [0028]));

determining a second priority by mapping the third and fourth fuzzy variable values onto

a profile surface adapted for determining preferences associated with a television viewer

(determining a second desirability or probability that a particular user fits the categories by

mapping the third and fourth preselected values relevant to each of demographic categories

onto a demographic categories table (as illustrated in figure 2) adapted for determining

preferences associated with a television user - see figure 2 and page 3, [0028] and [0033]);

comparing the second priority to the predefined threshold (comparing the preselected

values to the user values for each of relevant demographic categories – see page 3, [0028] and

[0033]); and

selecting the second digital object for display in the electronic television program guide if

the second priority crosses the predefined threshold (selecting the next advertisement for

display in the television program guide if the preselected values are met by the user values for

each of relevant demographic categories – see page 4, [0046] and page 3, [0033]).

Regarding claims **3 and 6**, Knee discloses displaying the first advertisement in the

television program guide (see page 3, [0033] and page 4, [0046]).

Regarding claim **9**, Knee discloses an apparatus for displaying a first digital object in an

electronic television program guide (an apparatus for displaying a first advertisement in an

television program guide - see abstract and page 5, claim 1) comprising:

a receiver (within set top box 48) that receives the first digital object from a direct--

to-home satellite communication system (receiving the first advertisement from satellite link 40 –

see page 2, [0018] and figure 1);

a controller (60) for determining first and second fuzzy variable values associated with

the first digital object (determining first and second preselected values associated with the first

advertisement – page 2, 0020; page 3, [0028]), the controller determining a first priority by

mapping the first and second fuzzy variable values onto a profile surface adapted for

determining preferences associated with a television viewer (determining a first desirability or

probability that a particular user fits the categories by mapping the first and second preselected

values, e.g., value "0.7" for sports fan demographic category and value "1" for the male in the

age group of 18-40 demographic category, onto a demographic categories table (as illustrated

in figure 2) adapted for determining preferences associated with a television user - see figure 2

and page 3, [0028] and [0033]), the controller comparing the first priority to a predefined

threshold (comparing the preselected values to the user values for each of relevant

demographic categories – see page 3, [0028] and [0033]), and

a display (52), the controller (60) causing the display (52) to present the first digital

object in the electronic television program guide if the first priority crosses the predefined

threshold (presenting the first advertisement, e.g., advertisement #2, in the television program

guide on television 52 if the preselected values are met by the user values for each of relevant

demographic categories – see page 4, [0046] and page 3, [0033]).

Regarding **claim 10**, Knee discloses the receiver is further adapted to receive a second

digital object from the direct-to-home satellite communication system (receiving next

advertisement from satellite link 40 – see page 2, [0018]);

the controller is further adapted to determine third and fourth fuzzy variable values

associated with the second digital object (determining third and fourth preselected values

associated with the next advertisement – page 2, 0020); and

the controller is further adapted to determine the predefined threshold by mapping the

third and fourth fuzzy variable values onto the profile surface (determining the user values by

mapping the third and fourth preselected values relevant to each of demographic categories

onto a demographic categories table (as illustrated in figure 2) - see figure 2 and page 3, [0028]

and [0033]).

Regarding claim **5** and **12**, Knee discloses selecting the advertisement(s) to be

displayed from among many advertisements transmitted to the user's set-top box by selecting

the best fit or closest approach. In this approach, the "closeness" of the preselected values for

an advertisement is determined from the predefined demographic categories values for the

user. The closeness may be determined by calculating the absolute difference between the

preselected value and the value for each demographic category, and then adding all of the

absolute differences. That is selecting a number or value based on the comparison between the

first priority and the predefined demographic categories values and associating the display of

the first advertisement with the selected number or value (see page 4, [0047]).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knee

et al. (U.S. 20020095676 A1) in view of Lemmons (US 6,481,011 B1).

Regarding claims **4 and 11**, Knee discloses comparison between the first priority and the

predefined threshold and displaying the first digital object (comparing the preselected values to

the predefined demographic categories values and displaying the first advertisement – see page

3, [0028] and [0033]). Knee does not explicitly disclose associating the display of the first digital

object with a selected color based on the comparison. However, Lemmons discloses

associating the display of program information with a selected color based on the comparison

between the display priority criteria. The program information may include the title of the

program, a scheduled broadcast time, advertising information ... etc. - see col. 9, lines 2-33; col.

3, lines 46-53). Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to modify the system of Knee by associating the display of

program information with a selected color based on the comparison between the display priority

criteria as disclosed by Lemmons in order to highlight programming of the type the user likes.

6.   Claims 7, 8, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knee et al. (U.S. 20020095676 A1) in view of Lazarus et al. (US 5,652,613 A).

Regarding claim **7**, Knee discloses a method for selecting a first digital object display in an electronic television program guide (a method for selecting a first advertisement display in a television program guide – see abstract and page 5, claim 5):

receiving the first digital object from a direct-to-home satellite communication system (receiving the first advertisement from satellite link 40 – see page 2, [0018]);

determining first and second fuzzy variable values associated with the first digital object (determining first and second preselected values, e.g., "0.5" for the sports fan demographic category and "1" for the annual income over $30,000 demographic category, associated with the first advertisement, e.g., advertisement #1 – page 2, [0020] and page 3, [0028]);

determining a first priority by mapping the first and second fuzzy variable values onto a profile surface adapted for determining preferences associated with a television viewer (determining a first desirability or probability that a particular user fits the categories by mapping the first and second preselected values, e.g., value "0.5" for sports fan demographic category and value "1" for the annual income over $30,000 demographic category, onto a demographic categories table (as illustrated in figure 2) adapted for determining preferences associated with a television user - see figure 2 and page 3, [0028] and [0033]);

comparing the first priority to a predefined threshold (comparing the preselected values to the user values for each of relevant demographic categories – see page 3, [0028] and [0033]); and

Knee discloses that the microprocessor 60 compares the values of the relevant demographic categories for the user stored in memory 64 with the preselected values associated with each advertisement received by the set top box 48 to determine whether the

advertisement is to be displayed on the television 52 (see page 3, 0028). That is, the

advertisement(s) is/are selected for displaying from among many advertisements transmitted to

the set top box if the relevant preselected values of the advertisement(s) are met by the

demographic categories values. On the other hand, the advertisement(s) is/are ignored or is/are

not selected for displaying if the relevant preselected values of the advertisement(s) are not met

by the demographic categories values. For example, since the user does not fit the income

category advertisement #1 would not be displayed on the user's television 52 (see page 3,

[0032]).

Knee does not teach deleting advertisement unlikely to be used from the memory. That

is, Knee does not teach deleting the unused information from the memory. However, Lazarus

discloses that a memory management system deletes the least valuable information to free

memory space. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to modify the system of Knee by deleting the least valuable information or

the unused information from the memory as taught by Lazarus in order to free memory space.

Regarding claim **8**, Knee discloses receiving a second digital object from the

direct-to-home satellite communication system (receiving next advertisement from satellite link

40 – see page 2, [0018]);

setting the predefined threshold to the first priority (setting the user values for each

demographic category to the first desirability or the probability that the user fits the category –

see page 3, [0028-0031]);

receiving a second digital object from the direct-to-home satellite communication system

(receiving the next advertisement from satellite link 40 – see page 2, [0018], [0020]);

determining third and fourth fuzzy variable values associated with the second digital

object (determining third and fourth preselected values associated with the next advertisement –

page 2, [0020] and page 3, [0028]));

determining a second priority by mapping the third and fourth fuzzy variable values onto

a profile surface adapted for determining preferences associated with a television viewer

(determining a second desirability or probability that a particular user fits the categories by

mapping the third and fourth preselected values relevant to each of demographic categories

onto a demographic categories table (as illustrated in figure 2) adapted for determining

preferences associated with a television user - see figure 2 and page 3, [0028] and [0033]);

comparing the second priority to the predefined threshold (comparing the preselected

values to the user values for each of relevant demographic categories – see page 3, [0028] and

[0033]); and

selecting the second digital object for display in the electronic television program guide if

the second priority crosses the predefined threshold (selecting the next advertisement for

display in the television program guide if the preselected values are met by the user values for

each of relevant demographic categories – see page 4, [0046] and page 3, [0033]).

Regarding claim **13**, Knee discloses an apparatus for displaying a first digital object in an

electronic television program guide (an apparatus for displaying a first advertisement in an

television program guide - see abstract and page 5, claim 1) comprising:

a receiver (within set top box 48) that receives the first digital object from a direct--

to-home satellite communication system (receiving the first advertisement from satellite link 40 –

see page 2, [0018] and figure 1);

a controller (60) for determining first and second fuzzy variable values associated with

the first digital object (determining first and second preselected values associated with the first

advertisement – page 2, 0020; page 3, [0028]), the controller determining a first priority by

mapping the first and second fuzzy variable values onto a profile surface adapted for

determining preferences associated with a television viewer (determining a first desirability or

probability that a particular user fits the categories by mapping the first and second preselected

values, e.g., value "0.5" for sports fan demographic category and value "1" for the annual

income over $30,000 demographic category, onto a demographic categories table (as

illustrated in figure 2) adapted for determining preferences associated with a television user –

see figure 2 and page 3, [0028] and [0033]), the controller comparing the first priority to a

predefined threshold (comparing the preselected values to the user values for each of relevant

demographic categories – see page 3, [0028] and [0033]), and a memory (64) (see figure 1).

Knee discloses that the microprocessor 60 compares the values of the relevant

demographic categories for the user stored in memory 64 with the preselected values

associated with each advertisement received by the set top box 48 to determine whether the

advertisement is to be displayed on the television 52 (see page 3, 0028). That is, the

advertisement(s) is/are selected for displaying from among many advertisements transmitted to

the set top box if the relevant preselected values of the advertisement(s) are met by the

demographic categories values. On the other hand, the advertisement(s) is/are ignored or is/are

not selected for displaying if the relevant preselected values of the advertisement(s) are not met

by the demographic categories values. For example, since the user does not fit the income

category advertisement #1 would not be displayed on the user's television 52 (see page 3,

[0032]).

Knee does not teach deleting advertisement unlikely to be used from the memory. That

is, Knee does not teach deleting the unused information from the memory. However, Lazarus

discloses that a memory management system deletes the least valuable information to free

memory space. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to modify the system of Knee by deleting the least valuable information or

the unused information from the memory as taught by Lazarus in order to free memory space.

Regarding claim **14**, Knee discloses the receiver is further adapted to receive a second

digital object from the direct-to-home satellite communication system (receiving next

advertisement from satellite link 40 – see page 2, [0018]);

the controller is further adapted to determine third and fourth fuzzy variable values

associated with the second digital object (determining third and fourth preselected values

associated with the next advertisement – page 2, 0020); and

the controller is further adapted to determine the predefined threshold by mapping the

third and fourth fuzzy variable values onto the profile surface (determining the user values by

mapping the third and fourth preselected values relevant to each of demographic categories

onto a demographic categories table (as illustrated in figure 2) - see figure 2 and page 3, [0028]

and [0033]).

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as

set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 703-306-5976. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ngoc K. Vu
Examiner
Art Unit 2611

May 31, 2005